

Wednesday, March 18, 2020

Attn: Ms. Jennifer Atkins AECOM 250 Apollo Drive Chelmsford, MA 01824

Project ID: GULF CHELSEA TERMINAL 60597375-0500

SDG ID: GCF50734

Sample ID#s: CF50734 - CF50736

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530

RI Lab Registration #63

UT Lab Registration #CT00007 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

March 18, 2020

SDG I.D.: GCF50734

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client Id	Lab Id	Matrix
OUTFALL 003	CF50734	SW DISCHARGE
TRIP BLANK 1	CF50735	SW DISCHARGE
TRIP BLANK 2	CF50736	SW DISCHARGE



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Analysis Report

March 18, 2020

FOR: Attn: Ms. Jennifer Atkins

AECOM

250 Apollo Drive

see "By" below

Chelmsford, MA 01824

Sample InformationCustody InformationDateTimeMatrix:SW DISCHARGECollected by:03/16/208:50Location Code:AECOME-GULFReceived by:CP03/16/2014:14

Rush Request: 72 Hour Analyzed by:

P.O.#: 112185

aboratory Data SDG ID: GCF50734

Phoenix ID: CF50734

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: OUTFALL 003

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Oil and Grease by EPA 1664A	< 1.4	1.4	mg/L	1	03/17/20	MSF	EPA 1664
рН	8.03	1.00	pH Units	1	03/16/20 20:07	AP/KDB	SM4500-H B-11
Total Suspended Solids	16	5.0	mg/L	1	03/16/20	QH	SM 2540D-11
Semi-Volatile Extraction	Completed				03/16/20	P/AK	SW3520C
Aromatic Volatiles w/Na	apthalene						
Benzene	ND	1.0	ug/L	1	03/16/20	MH	E624.1
Naphthalene	ND	1.0	ug/L	1	03/16/20	MH	E624.1
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/16/20	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	03/16/20	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	03/16/20	MH	70 - 130 %
% Toluene-d8	111		%	1	03/16/20	MH	70 - 130 %
Semivolatiles by SIM, P	<u>AH</u>						
Benzo(a)pyrene	ND	0.10	ug/L	1	03/17/20	WB	E625.1
Naphthalene	ND	0.48	ug/L	1	03/17/20	WB	E625.1
QA/QC Surrogates							
% 2-Fluorobiphenyl	52		%	1	03/17/20	WB	40 - 140 %
% Nitrobenzene-d5	45		%	1	03/17/20	WB	40 - 140 %
% Terphenyl-d14	40		%	1	03/17/20	WB	40 - 140 %

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: OUTFALL 003

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time

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Phyllis Shiller, Laboratory Director

March 18, 2020

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: CF50734



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Analysis Report

March 18, 2020

FOR: Attn: Ms. Jennifer Atkins

AECOM

250 Apollo Drive

Chelmsford, MA 01824

Matrix: SW DISCHARGE Collected by: 03/16/20

Location Code: AECOME-GULF Received by: CP 03/16/20 14:14

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 112185 Laboratory Data SDG ID: GCF50734

Phoenix ID: CF50735

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: TRIP BLANK 1

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Aromatic Volatiles w/N	lapthalene						
Benzene	ND	1.0	ug/L	1	03/16/20	МН	E624.1
Naphthalene	ND	1.0	ug/L	1	03/16/20	MH	E624.1
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	03/16/20	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/16/20	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	03/16/20	MH	70 - 130 %
% Toluene-d8	108		%	1	03/16/20	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

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Phyllis Shiller, Laboratory Director

March 18, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



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Analysis Report

March 18, 2020

FOR: Attn: Ms. Jennifer Atkins

AECOM

250 Apollo Drive

Chelmsford, MA 01824

<u>Sample Information</u> <u>Custody Information</u> <u>Date</u> <u>Time</u>

Matrix: SW DISCHARGE Collected by: 03/16/20

Location Code: AECOME-GULF Received by: CP 03/16/20 14:14

Rush Request: Standard Analyzed by: see "By" below

P.O.#: 112185 Laboratory Data SDG ID: GCF50734

Phoenix ID: CF50736

Project ID: GULF CHELSEA TERMINAL 60597375-0500

Client ID: TRIP BLANK 2

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Aromatic Volatiles w/N	lapthalene	<u>.</u>					
Benzene	ND	1.0	ug/L	1	03/16/20	МН	E624.1
Naphthalene	ND	1.0	ug/L	1	03/16/20	MH	E624.1
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	03/16/20	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	03/16/20	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	03/16/20	MH	70 - 130 %
% Toluene-d8	99		%	1	03/16/20	МН	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

March 18, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



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QA/QC Report

March 18, 2020

QA/QC Data

SDG I.D.: GCF50734

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 522732 (mg/L), QC Sample No: CF49570 (CF50734)														
Oil and Grease by EPA 1664A	BRL	1.4				99.0	97.0	2.0				85 - 115	20	
Comment:														
Additional: MS acceptance range 75-125%.														
QA/QC Batch 522628 (mg/L), Q	C Samp	le No:	CF50474	(CF507	34)									
Total Suspended Solids	BRL	2.5	< 5.0	<10	NC	98.0						85 - 115		
QA/QC Batch 522744 (pH), QC	Sample	No: CI	F50586 (C	F50734	.)									
рН			7.07	7.05	0.30	99.3						85 - 115	20	
Comment:														
Additional: LCS acceptance range	is 85-11	5% MS	acceptance	e range 7	75-125%									



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QA/QC Report

March 18, 2020

QA/QC Data

SDG I.D.: GCF50734

Parameter	Blank	BIk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits	
QA/QC Batch 522636 (ug/L), Q	C Samp	le No: CF49468 (CF50734)									
Semivolatiles by SIM, PA	<u>.H</u>										
Benzo(a)pyrene	ND	0.02	74	31	81.9				40 - 140	20	I,r
Naphthalene	ND	0.50	47	64	30.6				40 - 140	20	r
% 2-Fluorobiphenyl	52	%	53	55	3.7				40 - 140	20	
% Nitrobenzene-d5	62	%	58	66	12.9				40 - 140	20	
% Terphenyl-d14	62	%	58	55	5.3				40 - 140	20	
Comment:											
Additional 8270 criteria: 10% of coacceptance range for aqueous sa		s can be outside of acceptance criter 0-110%, for soils 30-130%)	ia as lor	ng as reco	overy is a	at least	10%. (Ad	cid surro	ogates		
QA/QC Batch 522768 (ug/L), Q	C Samp	le No: CF50735 (CF50734, CF5	0735, 0	CF50736	b)						
<u>Volatiles</u>											
Benzene	ND	0.70	90	84	6.9	101	108	6.7	65 - 135	20	
Naphthalene	ND	1.0	92	94	2.2	105	110	4.7	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	98	2.0	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	98	%	100	103	3.0	101	103	2.0	70 - 130	30	
% Dibromofluoromethane	95	%	97	95	2.1	93	93	0.0	70 - 130	30	
% Toluene-d8	90	%	101	95	6.1	97	105	7.9	70 - 130	30	
Comment:											
A blank MS/MSD was analyzed w	ith this ba	atch.									

 $[\]label{eq:local_local_local} I = \mbox{This parameter is outside laboratory LCS/LCSD specified recovery limits.} \\ r = \mbox{This parameter is outside laboratory RPD specified recovery limits.}$

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

March 18, 2020

Wednesday, March 18, 2020

Sample Criteria Exceedances Report GCF50734 - AECOME-GULF

Criteria: None State: MA

State: MA

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units

Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

^{***} No Data to Display ***



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Analysis Comments

March 18, 2020 SDG I.D.: GCF50734

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

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Cooler: Cooler	Temp / Jeb Pg of	Fax:	Phone: 1-978-905-2112 Email: jennifer.atkins@aecom.com	Project P.O:	This	93	Solve water			OSF.	Tolkey	Toure le	07/41 OF	3 3								MA MCB Cortification	GW-1	GW-2	GW-3] [?. %	₹ % 8.3] []	☐ MWRA eSMART	ted: MA
				97375-0500							To Containe to de;	Sella So	100 105 100 105 100 105 105 105 105 105									<u></u>	GW Protection	SW Protection	GA Mobility	GB Mobility	Residential DEC	Other	State where samples were collected:
	DY RECORD	370, Manchester, CT	Fax (860) 645-0823 (0) 645-8726	Project: Gulf Chelsea Terminal / 60597375-0500	ifer Atkins	WO	319RM					THA CEC. NOW,	2400 315 00 0 135° 0										(Residential)	Mo □	Other	ູ	<u>. </u>		State where s
	CHAIN OF CUSTODY RECORD	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040	Email: info@phoenixlabs.com Fax (860) 64: Client Services (860) 645-8726	Project: Gulf Che	Report to: Jennifer Atkins	Invoice to: AECOM	QUOTE # AE012319RM			Analysis			MOSING SSY 140	× ×	×	×						: Time:	1. S. 11.	1000		Turnaround: * Scc	2 Days* Note	3 Days*	☐ Other surcharge applies
	CH	587 East Midd	Email: inf C							3-16-20	ste Water pe OIL =Oil		Time									Ba S	300	\$ \$			<u> </u>		
			Inc.						dentification	Date:	ice Water WW=Wa SD=Solid W=Wi		Sample Date Matrix Sampled	SW 3.16-20										10 × 10		Tes comble	i i i i	nalysis standard	
			S.	AECOM	250 Apollo Drive	Chelmsford, MA 01824	Jennifer Atkins	/ /	Client Sample - Information - Identification	Hilm	Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Soild W=Wipe OIL=Oil		Customer Sample Identification	Outfall 003	Trip Blank 1	Try Blank 2						Accepted by:	2		Commonte Snorial Bornisamonte or Bornistions	Dless Curegulations:	for 2 day TAY	Renging andle	000
	74.44		Environme	Customer:	Address:					Sampler's Signature	Matrix Code: DW=Drinking Water RW=Raw Water SE	R=Bulk L=Liquid	PHOENIX USE ONLY SAMPLE #	12121	56735	75TOC					¥	Relinqvished by	H. H.	7	Commonte Choris	Af 1	rore		